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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,579	02/19/2004	Makoto Onozawa	1450.1036	2523
21171	7590	04/18/2006	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			AL NAZER, LEITH A	
			ART UNIT	PAPER NUMBER
			2821	

DATE MAILED: 04/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/780,579

Applicant(s)

ONOZAWA ET AL.

Examiner

Leith A. Al-Nazer

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the term "a plurality of first electrodes" in line 2 and "a first electrode in line 5. It is unclear whether these terms are referring to two separate structures or whether the recitation of "a first electrode" is referring to one of the "plurality of first electrodes". Claim 1 further recites "said first and second electrode drive circuits comprise first and second sustain circuits" in lines 10-11. The above wording is vague and indefinite, as it is unclear whether Applicant is attempting to claim one sustain circuit in each of the electrode drive circuits or two sustain circuits in each or the electrode drive circuits.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2821

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1-34 are rejected under 35 U.S.C. 102(a) as being anticipated by U.S. Patent Application Publication No. 2002/0175883 to Onozawa et al.

With respect to claims 1 and 24, Onozawa teaches a plasma display device comprising: a plurality of first electrodes (X1-Xn; figure 1); a plurality of second electrodes (Y1-Yn; figure 1) disposed nearly in parallel with the plurality of first electrodes so as to configure a display cell together therewith, and so as to activate electric discharge between themselves and a first electrode comprising the display cell; a first electrode drive circuit (3) applying discharge voltage to the plurality of first electrodes; and a second electrode drive circuit (5) for applying discharge voltage to the plurality of second electrodes; wherein the first and second electrode drive circuits comprise first and second sustain circuits (figure 4) outputting a sustain discharge voltage for activating electric discharge associated with light emission in the display cell, and at least one of the first or second sustain circuits has a parallel circuit (figure 2) in which a first switching element having a high-speed switching performance and a second switching element having a low-saturation-voltage performance are connected in parallel (paragraphs 0007-0009).

With respect to claims 2, 6, 10, 14, and 20, Onozawa teaches the first switching element being a power MOSFET (paragraph 0037).

With respect to claims 3, 7, 11, 15, and 21, Onozawa teaches the second switching element being an IGBT (paragraph 0037).

With respect to claims 4, 8, 12, 16, and 22, Onozawa teaches the first switching element being a power MOSFET, and the second switching element being an IGBT (paragraph 0037).

With respect to claims 5 and 19, Onozawa teaches the second switching element being turned on at least during a period that discharge current flows between the first electrodes and the second electrodes (paragraphs 0003-0011).

With respect to claim 9, Onozawa teaches the first switching element and the second switching element being comprised so that a drive voltage is applied to an electrode at different timings (paragraphs 0003-0011).

With respect to claims 13, 26, 27, and 30, Onozawa teaches at least one of the first or second sustain circuits comprising a higher-potential-side switching circuit supplying a first potential in relation to the sustain discharge voltage to the electrodes configuring the display cell, and a lower-potential-side switching circuit supplying a second potential in relation to the sustain discharge voltage, lower than the first potential; the higher-potential-side switching circuit and the lower-potential side switching circuit respectively having the parallel circuit in which the first switching element and the second switching element are connected in parallel (figure 5; paragraph 0011).

With respect to claims 17 and 28, Onozawa teaches the first and second electrode drive circuits further comprise a power recovery circuit connected to the first electrode configuring the display cell (paragraph 0037).

With respect to claims 18, 29, and 33, Onozawa teaches the first and second electrode drive circuits further comprising a power recovery switch connected via a coil to the first electrode configuring the display cell (paragraph 0037).

With respect to claim 23, Onozawa teaches the first switching element and the second switching element almost coinciding with each other in their input threshold voltage characteristics (paragraphs 0007-0009).

With respect to claim 25, Onozawa teaches a switching time of the first switching element being shorter than that of the second switching element (paragraphs 0007-0009).

With respect to claim 31, Onozawa teaches one terminal of the power recovery switch being connected via the coil to the electrode configuring the display cell, and the other terminal being connected to a ground terminal (paragraph 0037).

With respect to claim 32, Onozawa teaches a reset voltage for initializing the display cell being superposed to the reference voltage of the lower-potential-side switching circuit during a period that the reset voltage is supplied to the first electrode configuring the display cell (paragraphs 0004-0006).

With respect to claim 34, Onozawa teaches one terminal of the power recovery switch being connected via a coil to the electrode configuring the display cell, and a voltage synchronized with the reset voltage for initializing the display cell being superposed to the other terminal of the power recovery switch during a period that the reset voltage is supplied to the first electrode configuring the display cell (paragraph 0037).

### ***Response to Arguments***

5. Applicant's arguments with respect to the rejection under 35 USC 102 filed 06 January 2006 have been fully considered but they are not persuasive.

Applicant argues that Onozawa merely teaches that a voltage is applied to an electrode, but fails to disclose specific characteristics of the transistors. Examiner respectfully disagrees. Onozawa clearly discusses transistor characteristics throughout much of the specification. For example, see paragraphs 0003-0010. Examiner believes Onozawa discloses the transistor characteristics outlined in the claims of the present application. See the section above entitled "Claim Rejections – 35 USC 102".

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

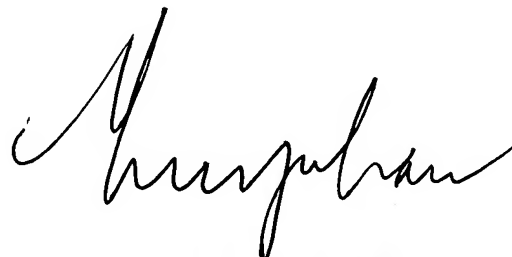
***Communication Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leith A. Al-Nazer whose telephone number is 571-272-1938. The examiner can normally be reached on Monday-Friday, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LA

A handwritten signature in black ink, appearing to read 'Thuy V. Tran', is written over a light gray grid background.

**THUY V. TRAN  
PRIMARY EXAMINER**